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ABSTRACT

This seminar introduction discusses why "cases," a teaching technique involving narrative descriptions of complex, realistic situations, are of interest to teachers, presents the basic principles of case-based teaching approaches, and raises research questions. Cases are of interest to educational researchers-teachers because they have witnessed learners become more involved and animated in courses where cases are used. They promote new structures in classrooms and methods, and they encourage rethinking the relationship between theory and practice. Case-based approaches seem to be useful tools for promoting change in curriculum, in teaching, and in teachers themselves. The purpose of the symposium is to formulate a research agenda to find evidence supporting the claim that cases may be used as tools to help teachers reimagine their teaching, their roles, and those of their students. Contains 13 references. (LH)

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ED 408 240

Cases as Tools for Educational Change: a Research Agenda Emerging from Practice.

An Experimental Interactive Symposium

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Foreword

This paper accompanies an experimental format, interactive symposium that took place at the annual meeting of the American Educational Research Association on March 26, 1997. The objective of the session was to bring educational researchers and practitioners together to discuss research strategies for investigating case based learning as a tool for educational change. The experimental format used both large and small group activities during the 90 minute session. The session began with a brief general introduction on case-based approaches to teaching and learning, moved to initial issue generation, then to small group work focusing on one of three perspectives on cases, and finally to a large group debriefing and discussion. This paper, which provides introduction, incorporates the three perspectives on cases and raises multiple research questions, was prepared in advance. It will be further developed around the additional research questions and approaches for investigating them raised by researchers and practitioners during the symposium. This is a work in progress.

Introduction to Cases for Teaching and Learning

In this paper, "cases" refer to narrative descriptions of richly complex, realistic situations and the people involved in those situations. Frequently the characters in the case must make decisions or face dilemmas and act within the given context. The narrative cases discussed here have a story quality to them that differentiates them from medical records, clinical case histories and formal reports of court cases. Such records and court reports make excellent resource material for cases, but lack the immediacy of the richer contexts and actions provided in narrative cases.

The use of cases is as old as storytelling itself, and the variations of today's case-based approaches draw upon the basic framework used by teacher/storytellers. A skillful teacher using stories encourages the learners to explore the situation and consider the actions of the characters in light of options and of their own possible decisions. Frequently, the learners decide whether they would act similarly, and in so doing, face themselves, their beliefs and values.

These, then are some basic principles of case-based teaching approaches:

Provide (or have learners provide) an appropriate narrative story of characters needing to make decisions in or reacting to a given context. Then, the teacher encourages learners to take the lead as learners:

1. engage with the characters and circumstances;
2. work to understand the facts, values, contexts, options, consequences; and
3. connect the specifics of the single story to a larger framework of understanding, and to the learner's own life circumstances.

The case method builds upon these principles and formalizes them, with variations to suit the type of subject matter and the learning goals (Boehrer and Linsky, 1990). The Harvard Business School (HBS) case approach (Christensen and Hansen, 1987) is, in modern times, a model upon which many variations are based. Students receive a case, usually several pages in length, to read and analyze before class time. In class, the teacher facilitates the discussion. The aim of the business model is to "crack" the case -- to figure out critical decisions that led to the described outcomes, and to describe a better course of action. The HBS model focuses on effective decision making.

Two of the papers presented here illustrate two different variations of the HBS model. In reading education, Timothy Rasinski and Mary Styslinger use the basic HBS model and describe their adaptation of it in their portion of the paper. Margaret Waterman's paper describes case methods for science learning based on the methods used in the pre-clinical years at Harvard Medical school (Tosteson, et al., 1994, Goodenough, 1991, Wilkerson and Felletti, 1989).

Why Cases Interest Us

We are educational researchers. We are also teachers. Our interest in cases was developed through our teaching of students and our work with in-service teachers and faculty. In our own practices as educators we have observed teachers and learners writing and working with cases. We have reason to suggest that cases and case-based approaches are more than just another dance in the teaching/learning repertoire. When teachers choose to use case approaches, they rethink the structure, content and organization of their courses, and when used properly, they must prepare themselves and their students for new roles. Cases seem to be transformative agents.

Here are some of our observations: We have seen learners become more involved and animated in courses when cases are used. We have realized that students could and should write their *own* cases as a way to understand more fully the contexts and decisions within which they will soon be working. We have seen teachers new to case method be amazed at what students are able to do, that they can set their own course of learning. We have seen new structures in classrooms, new multidisciplinary courses, and new content being introduced into formerly single-discipline courses. As we ourselves work with cases, we have rethought the relationships between theory and practice in our fields, and have developed new lines of thought about what needs to be included in curriculum to better prepare practitioners. It is these kinds of observations that lead us to think case-based teaching approaches may be useful tools for promoting educational change.

Research on Cases

Literature on case-based and problem-based learning emphasizes descriptions of the case method and efforts to implement the approach in institutions or courses, or it relates student and faculty satisfaction (e.g., Barrows and Tamblyn, 1980, Kaufman 1985, Tosteson et al, 1994), studies the necessary expertise of the teachers (e.g., Schmidt et al., 1993) or examines student learning outcomes (see reviews by Albanese

and Mitchell, 1993 and Vernon and Blake, 1993) Some few papers examine the ways in which medical students learn with cases (e.g. Wilkerson et al., 1991). Within this body of work are descriptions of new interdisciplinary courses, new patterns of library resource use, new programs of faculty development, and new organizational structures within e.g., medical schools. The implementation studies describe some of the changes that came about as such schools made the commitment to use case methods, and most are focused on the institution or the course as a level of organization. However, systematic research directly addressing cases and case methods as tools for changing the way individual people think about curriculum, teaching and learning, and their subsequent actions as curriculum developers, teachers and learners seems to be lacking.

Educational Change

Change is difficult to measure, much less define. We began the discussion of change by offering the following definition: By change we mean lasting differences in one or more components of the educational system. Changes might come about in the actions of individual teachers and learners, in the curriculum, and in the structural/social organization of education.

According to conceptual change theory (Posner et al., 1982) people change when they experience dissatisfaction with their current concept. Yet, before they can change, they need to have some new version of the concept in mind. The new concept or view needs to be understandable, it needs to be a plausible solution to the problems inherent with the older view, and adopting the new view needs to have some potential benefit for the person. Further, if the motivation to change comes about because the individual will experience intrinsic rewards such as improved self-esteem, increased sense of competence or the perception of being a valued contributor, the change is more likely to be lasting than if motivated solely by extrinsic rewards such as increased salary, accreditation by the state or fear of reprisal (Deci and Ryan, 1985).

In educational change at the level of the individual, it is the teacher's concepts of themselves as teachers, of their students as learners, and of how their curriculum reflects the discipline that are central to this change. Case based approaches seem to us to be useful tools for promoting change in curriculum, in teaching, and in teachers themselves. If this claim is so, then their practical significance as such tools is great.

Toward a Research Agenda on Cases as Tools for Educational Change

By working with cases in three different disciplines, we each imagine different facets of educational change that can come about by using cases and case methods. Eileen McErlain is interested in the changes that occur in faculty case developers, and subsequently, in the curriculum, as they reconsider theory/practice connections and as they realize the critical need for information about the culture of their clients. Margaret Waterman is also interested in changes in teachers when they use case methods, and the related changes in their classrooms and curricula. Timothy Rasinski and Mary Styslinger are interested in

changes in the learners "informed use of knowledge" in classrooms resulting from researching and writing cases.

We think cases may be tools capable of helping teachers re-imagine their teaching, their roles and those of their students, and what and how they teach. There is need for systematic research to support the claim that cases and case-based approaches can help with such re-imagining. Helping us think about that research agenda was the purpose of this symposium.

Literature Cited

Albanese, M.A. and S. Mitchell. 1993. Problem-based learning: a review of literature on its outcomes and implementation issues. *Academic Medicine* 68:52-81.

Barrows, H. S. and R. Tamblyn. 1980 *Problem-Based Learning*. New York: Springer.

Boehrer, J. and M. Linsky. 1990 Teaching with cases: learning to question. *New Directions for Teaching and Learning*, No. 42: 41-57. San Francisco: Jossey-Bass.

Christensen, C. R. and A.J. Hansen. 1981. *Teaching and the Case Method*. Boston: Harvard Business School Publishing Division.

Deci, E.L. and Ryan, R. 1985 *Intrinsic Motivation and Self-Determination in Human Behavior*. New York: Plenum.

Goodenough, D.A. 1991. Changing ground: a medical school lecturer turns to discussion teaching. Ch. 5 in Christensen, C.R, D.A. Garvin and A. Sweet. *Education for Judgment: the Artistry of Discussion Leadership*. Boston: Harvard Business School Press.

Kaufman, A. (Ed.) 1985. *Implementing Problem-Based Medical Education: Lessons from successful innovations*. New York: Springer Publishing.

Posner, G. K. Strike, P. Hewson and W. Gerzog. 1982. Accommodation of a scientific conception: toward a theory of conceptual change. *Science Education* 66:211-227.

Schmidt, H.G., A. Van der Arend, J.H.C. Moust, I. Kokx, and L. Boon. 1993. Influence of tutors' subject-matter expertise on student effort and achievement in problem-based learning. *Academic Medicine* 68(10):784-91.

Tosteson, D.C, S. J. Adelstein and S.T. Carver. 1994. *New Pathways to Medical School: Learning to Learn at Harvard Medical School*. Cambridge, MA: Harvard University Press.

Vernon, D.T.A. and R.L. Blake. 1993. Does problem-based learning work? A meta-analysis of evaluative research. *Academic Medicine* 68:550-563.

Wilkerson, L. and G. Feletti. 1989. Problem-based learning: one approach to increasing student participation. *New Directions for Teaching and Learning*, No. 37: 51-60. San Francisco: Jossey-Bass.

Wilkerson, L., J.P. Hafler and P. Liu. 1991. A case study of student-directed discussion in four problem-based tutorial groups. *Academic Medicine* 66(9):S79-S81.